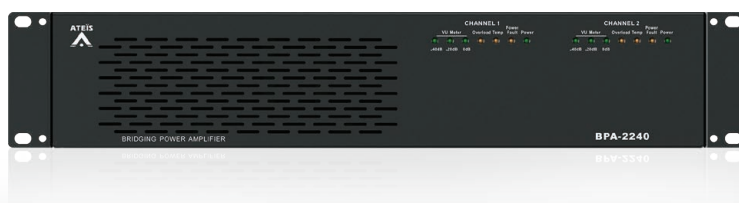




# BPA



## Bridging Power Amplifier

The BPA is a 2U 19" rack-mountable bridging power amplifier with extremely low power consumption during standby mode; and transformer isolated for 100V, 50V, 8 ohm or 70V, 35V, 8 ohm speaker line. There are audio line inputs with a balanced XLR and phoenix connectors. The available models are listed as below:

\*BPA-1240/BPA-1480/BPA-1000 (240W/480W/1000W x 1CH)

\*BPA-2060/BPA-2120/BPA2240/BPA-2480 (60W/120W/240W/480W x 2CH)

The BPA-2060, BPA-2120, BPA-2240, BPA-2480 can be bridged (recommend) or paralleled to double the wattage for each two channels. The BPA amplifier is designed to have protection of short-to-ground or short circuit, overload and overheat. It also provides an automatic wake-up signal detection, which can automatically wake up the amplifier from standby mode when receives the audio signal (> -40 dB). The BPA amplifier has a 115 VAC or 230 VAC mains supply and a 48 VDC battery backup input. The status LED on the front panel include power, fault, overload temp. and VU meter.

### FEATURES

- 2 channels BPA-2060, BPA-2120, BPA-2240, BPA-2480 can be bridged (recommend) or paralleled to double the power wattage
- Full protection circuitry: overload, short-to-ground or short circuit on speaker lines and overheat
- Extremely low power consumption during standby mode (0.9W)
- Input gain control

### CONTROLS AND INDICATORS

#### Front

- VU meter LEDs (-40 dB, -20 dB and 0 dB)
- Overheat LED
- Overload LED
- Power LED
- Power fault LED

#### Back

- AC power socket
- Power on/off switch
- LED disable switch for EN54-16
- 48 VDC battery backup input
- Amp fault contact and on/off switch
- 1 or 2 (depend on model) channel audio output(s)
- 1 or 2 (depend on model) XLR line input(s) or euro-block terminal
- 1 or 2 (depend on model) XLR channel output(s) or euro-block terminal
- 1 or 2 (depend on model) channel input(s) gain and on/off switch
- Ground (GND) socket

### REAR PANEL

BPA-1240



BPA-1480



BPA-2060



BPA-2120



BPA-2240



BPA-2480



BPA-1000



# BPA

## Bridging Power Amplifier

### ELECTRICAL

- AC power input
  - EU: 220 VAC ~ 240 VAC, 50/60 Hz
  - US: 100 VAC ~ 120 VAC, 50/60 Hz
- Power consumption (AC)

model	idle	1/2 full power	full power
<b>BPA-1240</b>	23VA	330VA	480VA
<b>BPA-1480</b>	24VA	625VA	872VA
<b>BPA-2060</b>	40VA	212VA	282VA
<b>BPA-2120</b>	30VA	345VA	458VA
<b>BPA-2240</b>	32VA	660VA	960VA
<b>BPA-2480</b>	34VA	1245VA	1745VA
<b>BPA-1000</b>	30VA	1280VA	1795VA

Idle: pilot tone -36 dB, 1/2 full power: alarm tone

- DC power input: 43 VDC ~ 56 VDC
- Power consumption (DC)

model	standby mode	idle	1/8 full power	1/2 full power	full power
<b>BPA-1240</b>	2.2W	16W	100W	274W	430W
<b>BPA-1480</b>	2.2W	17W	175W	585W	875W
<b>BPA-2060</b>	2.2W	28W	53W	154W	212W
<b>BPA-2120</b>	2.2W	21W	101W	278W	394W
<b>BPA-2240</b>	2.2W	22W	192W	548W	860W
<b>BPA-2480</b>	2.2W	23W	350W	1170W	1750W
<b>BPA-1000</b>	2.2W	20W	343W	989W	1536W

Idle: pilot tone -36 dB, 1/8 full power: speech, 1/2 full power: alarm tone

- Amplifier output
  - E (EU) type: 100V, 50V, 8 ohm
  - U (US) type: 70V, 35V, 8 ohm

### AUDIO CHARACTERISTICS

- Frequency response: 50 Hz and 18k Hz ( $\pm 3$  dB)
- SNR: > 86 dB
- THD+N:  $\leq 1\%$  @ 1k Hz
- Input impedance: 22k ohm
- Crosstalk (100V): > 80 dB @ 42 dB, 0 dBu (1k Hz) in
- Crosstalk (70V): > 80 dB @ 39 dB, 0 dBu (1k Hz) in

### CERTIFICATIONS AND APPROVALS

Europe	Voice Alarm	EN54-16 (In process)
Europe	CE/EMI	EN55032: 2015 AC: 2016 Class A (In process)
Europe	CE/EMS	EN61000-4-2 (ESD) (In process)
Europe	CE/LVD	EN60065: 2014 (In process)
USA	Mass Notification Systems	UL2572 (Pending)
USA	Safety	UL60065 (Pending)

### LOUDSPEAKERS OUTPUTS

model	rated output power	rated load impedance	rated load capacitance
<b>BPA-2060</b>	60W	167 ohm (100V); 82 ohm (70V) 41.6 ohm (50V); 20 ohm (35V)	30 nF (100V); 62 nF (70V)
<b>BPA-2120</b>	120W	83 ohm (100V); 41 ohm (70V) 20 ohm (50V); 10 ohm (35V)	62 nF (100V); 120 nF (70V)
<b>BPA-1240</b> <b>BPA-2240</b>	240W	41.6 ohm (100V); 20 ohm (70V) 10 ohm (50V); 5.1 ohm (35V)	120 nF (100V); 240 nF (70V)
<b>BPA-1480</b> <b>BPA-2480</b>	480W	20 ohm (100V); 10 ohm (70V) 5 ohm (50V); 2.6 ohm (35V)	240 nF (100V); 470 nF (70V)
<b>BPA-1000</b>	1000W	10 ohm (100V); 4.9 ohm (70V) 2.5 ohm (50V); 1.2 ohm (35V)	470 nF (100V); 820 nF (70V)

\* (1 min. at 40°C) (per CH)

### MECHANICAL

- Dimensions (W x H x D)
  - BPA-1240: 425 x 88 x 295 mm (16.7 x 3.5 x 11.6 inch)
  - BPA-1480: 425 x 88 x 309 mm (16.7 x 3.5 x 12.2 inch)
  - BPA-2060: 425 x 88 x 355 mm (16.7 x 3.5 x 14 inch)
  - BPA-2120: 426 x 88 x 356 mm (16.8 x 3.5 x 14 inch)
  - BPA-2240: 426 x 88 x 376 mm (16.8 x 3.5 x 14.8 inch)
  - BPA-2480: 426 x 88 x 435 mm (16.8 x 3.5 x 17 inch)
  - BPA-1000: 426 x 88 x 390 mm (16.8 x 3.5 x 15.6 inch)
- Weight
  - BPA-1240: 10.5 kg (23.1 lbs)
  - BPA-1480: 14 kg (30.8 lbs)
  - BPA-2060: 13 kg (28.6 lbs)
  - BPA-2120: 13 kg (28.6 lbs)
  - BPA-2240: 16.2 kg (35.7 lbs)
  - BPA-2480: 22 kg (48.5 lbs)
  - BPA-1000: 21 kg (46.2 lbs)
- Mounting: 19" 2U rack
- Colour: RAL 7016

### ENVIRONMENTAL

- Operating temperature: -5 °C ~ +55 °C (+23 °F ~ +131 °F)
- Storage temperature: -40 °C ~ +70 °C (-40°F ~ +158 °F)
- Relative humidity: 20% to 95%
- Air pressure: 600 to 1100 hPa
- Heat dissipation
  - BPA-1240: 1512 BTU/hr
  - BPA-1480: 3044 BTU/hr
  - BPA-2060: 767 BTU/hr
  - BPA-2120: 1587 BTU/hr
  - BPA-2240: 3019 BTU/hr
  - BPA-2480: 6090 BTU/hr
  - BPA-1000: 6347 BTU/hr

### ORDERING INFORMATION

- BPA-1240E/U/T: 240Wx1 BPamp
- BPA-1480E/U/T: 480Wx1 BPamp
- BPA-2060E/U/T: 60Wx2 BPamp
- BPA-2120E/U/T: 120Wx2 BPamp
- BPA-2240E/U/T: 240Wx2 BPamp
- BPA-2480E/U/T: 480Wx2 BPamp
- BPA-1000E/U/T: 1000Wx1 BPamp

#### Available types

E: 220-240Vac, OUT 100V/50V/8ohm  
U: 100-120Vac, OUT 70V/35V/8ohm  
T: 100-120Vac, OUT 100V/50V/8ohm

### MODEL EXAMPLES

- BPA-1480E: 480Wx1 BPamp/220-240Vac, OUT 100V/50V/8ohm
- BPA-2240U: 240Wx2 BPamp/100-120Vac, OUT 70V/35V/8ohm